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LOST IN TRANSLATION: CHALLENGES AND SOLUTIONS TO LANGUAGE
BARRIERS IN HEALTHCARE IN MISSISSIPPI

by
Galina Ostrovsky

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of
the requirements of the Sally McDonnell Barksdale Honors College.

Oxford
May 2019

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Abstract

Lost in Translation: Challenges and Solutions to Language Barriers in Healthcare in Mississippi

(Under the direction of Dr. John Green)

Language barriers can impede access to healthcare and compromise quality of care for limited English proficiency (LEP) patients. Although a rights-based framework would suggest and federal mandates require healthcare facilities to provide language access services, multiple factors result in the persistence of language barriers in healthcare. As the literature review shows, these factors include limitations in policy, enforcement, standardization, resources, and ability to recruit and retain professional interpreters. This thesis uses a multi-method case study entailing Mississippi in general and information from two specific sites, a rural Delta county and an urban central county, to assess the issue of language barriers in healthcare across various facilities in the state. Through sociodemographic analysis, eight qualitative key-informant telephone interviews, critical review of providers' websites, and a personal visit to healthcare facilities in the Delta region, the findings suggest a heightened need for interpreter services but challenges in their quality, accessibility, and availability. Trends such as net-out migration and closure of rural hospitals in addition to limitations in resources, professional training, and enforcement result in challenges that have reduced access to healthcare for LEP patients, especially in medically underserved areas like rural counties in Mississippi. This thesis seeks to address the issue of language barriers in healthcare in Mississippi and offer future recommendations.

Preface

When I came to the University of Mississippi, I made a conscious effort to delve into unique academic opportunities that would captivate my interests and fulfill my passions. Choosing a major was not a simple task for me, but I knew that even from a young age, I have always been deeply interested in scientific processes and critical applications. I found medicine and healthcare captivating, as I grew up observing my mother's constant drive and excitement in her career as a physician. Wanting to explore the field for myself, I began shadowing various physicians in Mississippi while I was in high school and continued to shadow as an undergraduate student. I saw that a physician's work is far from what most imagine, but it is engaging and rarely dull. Over the course of those experiences, I became more and more impressed by each physician's skillfulness and compassion for patients. I found comfort in seeing the hospital as a place where people of all walks of life should be able seek treatment. However, I also began to learn and see that the people of Mississippi face many barriers when it comes to healthcare. I was especially interested in the personal communication challenges that patients and providers can face when language barriers are in place.

As a first generation American in a Russian-speaking household, I saw the power of language first-hand when it comes to assimilating into a community. Living in the United States but barely knowing English, my parents initially faced challenges in all aspects of life due to language barriers, even in healthcare. My passion for learning foreign languages is rooted in my family's background. I began taking Spanish classes in the sixth grade, and I have continued to take classes to gain proficiency in the language. I have come to understand that ability to speak in Spanish is undeniably a vital skill to be

able to connect with the rapidly-growing and often overlooked Spanish-speaking community.

From my experiences and passions, I chose to major in both Biochemistry and Spanish as an undergraduate student. Pursuing a degree in Spanish in addition to Biochemistry may not be the most typical pathway for a student planning to attend medical school. Nonetheless, my desire to learn both science and foreign languages drove me to academically commit to these two fields of study. While these two majors appear to stem from conflicting worlds of academia, I have found a unique common ground to broaden my perspective on all that medicine encompasses and apply my knowledge from both of these majors. I have grown to understand that medicine involves many languages, both scientific and foreign. Medicine, overall, is a universal language. Health challenges impact people across diverse cultures, languages, and backgrounds, yet access to healthcare is unfortunately inconsistent due to language barriers. My studies and observations drove me to this thesis topic of language barriers in healthcare in Mississippi. Through this research, I have gained a deeper understanding and motivation to address health disparities in Mississippi that will carry with me in my future career as a physician.

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Introduction

Limited English proficiency (LEP) is a critical barrier to healthcare among individuals in the United States. Over 25 million people in the U.S., or 9 percent of the population 5 years and older, are characterized as having LEP (U.S. Census Bureau, 2017b). Individuals who are considered to have LEP are those who “do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English” and “may be entitled to language assistance with respect to a particular type of service, benefit, or encounter” (“Limited English proficiency,” 2011). Currently, over 64 million people, or over 21 percent of the population, regularly speak a language other than English at home (U.S. Census Bureau, 2017b). Of those who speak a non-English language at home, approximately 40 percent report having limited English proficiency. The United States has experienced a significant increase in the number of LEP individuals for the past several decades. Between 1990 and 2013, the LEP population is estimated to have grown 80 percent from nearly 14 million to 25.1 million individuals (Zong & Batalova, 2015).

LEP presents a considerable challenge to patient-centered healthcare in the United States. These patients are less likely to have access to a regular source of primary care and report lower rates of doctor visits and use of preventive services even when factors such as health status, economic indicators, ethnicity, health insurance, and literacy have been controlled for (Brach, Fraser, & Paez, 2005; Karliner, Kim, Meltzer, & Auerbach, 2010; Flores, Rabke-Verani, Pine, & Sabharwal, 2002). However, even when access to care is available, patients with LEP generally exhibit poorer health outcomes when compared to patients with full English proficiency. LEP is associated with decreased comprehension of diagnoses and even increased misdiagnoses, decreased satisfaction

with care, and increased medical complications or risk of medical errors (Karliner et al., 2010). With regards to hospital care, LEP patients are at higher risk of longer stays and readmission (Karliner et al., 2010). These poor health outcomes and adverse effects associated with LEP come at least partially as a result of errors in communication on both patient and provider sides (Flores et al., 2012). Non-English-speaking patients are less able to communicate their needs and symptoms to their medical caregivers, and English-speaking providers face difficulties communicating diagnoses and treatment plans. A lack of clear communication leads to less effective and less personal patient-provider relationships (Baker, Hayes, & Fortier, 1998). Additionally, patients who do not speak English well often feel uncomfortable communicating sensitive information when the healthcare system is primarily English-speaking. By compromising quality of care and contributing to preventable adverse health outcomes, language barriers in healthcare pose a significant problem in the United States.

While Title VI of the Civil Rights Act of 1964 and subsequent mandates legally require that federally funded healthcare institutions provide interpreter services for LEP patients to ensure equal access to healthcare, critical language barriers still exist. The use of an interpreter serves as the typical standard to bypassing language barriers in healthcare, and when interpreter services are adequate and available, an LEP patient is greatly benefited (Jacobs et al., 2001). However, many shortcomings in these services lead to a persistence of these barriers. Several factors can hinder such services, including limited accessibility, minimal enforcement of federal and state mandates, limited knowledge on the part of the healthcare provider, costs of services, ineffective training, and other factors. In 2013, fewer than two of three U.S. hospitals provided language services to patients (Schiaffino, Nara, & Mao, 2016). In many cases where language

services are offered, interpreters are unavailable, inaccessible, poorly trained, or inexperienced. Even with the use of interpreter services, patients report less satisfaction with their patient-provider relationship (Baker et al., 1998). Effective and comfortable communication is critical in building a patient-provider relationship. While interpreter services help bridge the gap in language barriers, the quality and availability of these current services need to be addressed. This study focuses on these issues in relation to healthcare in Mississippi, studying both urban and rural counties in the state.

Population Focus

Spanish-Speaking Population

Terminology. Many terms are used interchangeably to refer to Spanish-speaking populations in the United States, including *Latin American*, *Hispanic*, and *Latino/a/x*, whose definitions vary in relation to social, economic, historical, and ideological factors. The United States has experienced a significant growth in the Spanish-speaking population for the past several decades, bringing more attention to which terms are preferable when referring to this fast-growing demographic (U.S. Census Bureau, 2017a). No single term is universally accepted by this population, given its diversity. The term *Hispanic* is often treated as a sociopolitical or racial group, but by federal policy, it is considered an ethnicity that refers to people of Spanish-speaking origin or ancestry rather than a racial group. In the 1970s, the U.S. Census Bureau adopted the term *Hispanic* to label the largest minority in the country and defined it as a “person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race” (U.S. Census Bureau, 2018b). On the other hand, the term *Latino/a/x* usually refers to geography and generally includes anyone of Latin American origin or ancestry which is not limited to only Spanish-speaking countries. The term *Latinx* has been gaining popularity as the gender-neutral alternative to *Latino/a*. Because *Latino/a/x* refers to having an origin of a certain geographical location rather than of a specific language, the term *Hispanic* is more appropriate to use when referring to individuals who speak Spanish. However, an individual who is considered Hispanic may have Spanish-speaking ancestors, but the individual is not necessarily Spanish-speaking in all cases. Because this research primarily deals with barriers as a result of language in healthcare and to

minimize ambiguity, the term *Spanish-speaking* will be used when explicitly referring to individuals who speak Spanish.

Prevalence of Spanish Language. In the United States, the second most widely spoken language at home behind English is Spanish with approximately 40 million speakers, which makes up over 13 percent of the population of people ages 5 and older (U.S. Census Bureau, 2017b). Spanish is also one of the fastest-growing languages, as the United States has seen a 233% increase in the number of Spanish speakers since 1980 (Lopez & Gonzalez-Barerra, 2013). The quickly-growing Hispanic population is altering the ethnic makeup of the United States. The U.S. Census Bureau projects that the Hispanic population will reach 111 million by 2060 (U.S. Census Bureau, 2017a). Of the LEP population, 63.7 percent are Spanish speakers, signifying that over 16 million individuals who have limited English proficiency are Spanish speakers (U.S. Census Bureau, 2017b). These numbers are less likely to include undocumented immigrants. The Department of Homeland Security reported in 2016 that 12 million undocumented immigrants were living in the United States in January 2015, with at least 70 percent of those immigrants coming from Spanish-speaking countries (Baker, 2018). Thus, it may be estimated that an additional 8.4 million undocumented Spanish speakers are living in the United States.

Barriers to Healthcare in the United States. With regards to healthcare barriers such as usual sources of care, health insurance coverage, and quality of care, the Hispanic population is one of the most disadvantaged ethnic groups in the United States (Derose, Escarce, & Lurie, 2007). Many factors result in the vulnerability of Hispanic individuals when it comes to receiving inadequate healthcare, including socioeconomic background; immigration status; federal, state, and local policies; residential location; stigma and

marginalization; and limited English proficiency (Derosé et al., 2007). Because of the heterogeneity of the Hispanic population living in the U.S., studying access to care for this group can be challenging. However, research has demonstrated that for Hispanic individuals with LEP, disparities in healthcare can at least be partially attributed to language barriers (Cheng, Chen, & Cunningham, 2007). Studies have revealed that Hispanic individuals who speak English at home and non-Hispanic whites receive recommended healthcare services in somewhat similar proportions, but Hispanic individuals who do not speak English at home are at greater risk for not receiving recommended healthcare services even after controlling for other variables related to healthcare access (Cheng et al., 2007).

Other sociocultural factors for the Hispanic population. While interpreter services are a valuable resource in mitigating language barriers in healthcare, Hispanic individuals may face other sociocultural barriers that prevent their access to healthcare in the U.S. One study found that non-Hispanic whites were the group most likely to receive recommended healthcare services, followed by Hispanics who spoke English at home, then Hispanics who did not speak English at home but were still comfortable speaking English, and lastly, Hispanics who were uncomfortable speaking in English (Cheng et al., 2007). Hispanics who were comfortable speaking English and did not face language barriers were still less likely to receive healthcare services compared to non-Hispanic whites, which implies that communication difficulties are not the only cause of health disparities between Hispanic individuals and non-Hispanic whites. Furthermore, limited English proficiency may be an indicator for lack of documentation, meaning that fear of deportation may prevent LEP patients from seeking medical care in the U.S. in the first place (Garcés, Scarinci, & Harrison, 2006). Cultural differences between Hispanic

individuals and U.S. providers may also impact access to healthcare for Hispanic individuals who are accustomed to different cultural health practices than the type of care available in the United States. Though communication is one key element in providing access to healthcare, interpreter services may not always be the sole method to ensure equal access to healthcare for the Hispanic population. Many structural and nonstructural barriers prevent access to quality healthcare for patients with limited English proficiency.

Mississippi

Health Status. Mississippi continuously ranks last or second to last for overall health among states in the U.S. (America's Health Rankings, 2018). While there are many factors that influence health outcomes, systemically faced obstacles to healthcare result in worse health disparities. Socioeconomic status, geographic location, race, ethnicity, religion, and sexual orientation are social determinants that can impact an individual's health and access to medical care (Hinote & Wasserman, 2017). The World Health Organization (WHO) defines social determinants of health as the "conditions in which people are born, grown, work, live, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels" (WHO, n.d.). Social determinants are largely responsible for health inequities. As stated on the Mississippi State Department of Health's (MSDH) website,

The result is a disproportionate burden of disease and illness that is borne by racial and ethnic minority populations and the rural and urban poor. Health disparities not only affect the groups facing health inequalities but limit overall improvements in quality of care, the health status for the broader population, and results in unnecessary costs (MSDH, 2017).

Unfortunately, not only does Mississippi rank last in the health of its residents, but the state also ranks last in the number of active physicians per 100,000 population, making it the most medically underserved state in the country (Association of American Medical Colleges, 2017).

The MSDH recognizes Mississippi's poor health status, noting that "Mississippi ranks last, or close to last, in almost every leading health outcome" as the first line on the "Health Equity in Mississippi" webpage (MSDH, 2017). The MSDH's Health Equity team lists four current efforts in place to address health disparities in Mississippi. The efforts listed include an expansion in health disparity data, cultural competence training, community interpreter training, and Hepatitis B screenings for the Gulf Coast (MSDH, 2017). It is important to note that two of the four current efforts listed address the need to improve language access to healthcare. The MSDH recognizes the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (National CLAS Standards), which seek to "provide effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs" (U.S. Department of Health and Human Services: Office of Minority Health, 2000). As a response to the growing diversity of Mississippi, the MSDH in 2016 became licensed to offer Cultural Competence Training through the Cross-Cultural Health Care Program (CCHCP), a national nonprofit training and consulting organization (MSDH, 2017). In addition to cultural competence training, the MSDH lists community interpreter training as a current effort to address health disparities in the state. The Health Equity Team states, "Limited English proficiency can greatly affect access to care. Being limited English proficient affects a person the moment he or she walks into a health care setting"

(MSDH, 2017). The Health Equity department is licensed to provide 48-hour Community Interpreter and Medical Terminology trainings in Mississippi through Cross Cultural Communications, the only international agency in the United States for professional medical and community interpreting and cultural competence (MSDH, 2017). The MSDH's Health Equity page notes, "Medical interpreters not only provided clear communication between the patient and provider, they relieve family members and friends from the burden of providing complex health information, and ensure that those who have limited English proficiency receive the highest quality of care" (MSDH, 2017). Currently, the MSDH is the only licensed site in the state that provides the 40-hour requisite for national certification.

LEP Prevalence. In Mississippi, more than 109,000 people speak a language other than English at home, and about two-thirds of this group speak Spanish (U.S. Census Bureau, 2017b). Notably, 43,535 individuals in Mississippi speak English less than "very well," with more than 29,000 of those individuals being Spanish speakers (U.S. Census Bureau, 2017b). As previously mentioned, these numbers are less likely to include undocumented immigrants, increasing the number of non-English, and mostly Spanish, speakers living in the state. The number of LEP individuals living in the state has increased steadily for the past several decades (U.S. Census Bureau, 2017b). Also previously noted was that the MSDH places heightened priority on addressing language barriers as part of its efforts to address health disparities in the state.

Out-Migration and the "Brain Drain". Mississippi is losing young, more highly-educated adults to out-migration faster than any other state in the United States (Campbell, & Ganucheau, 2018). This phenomenon, commonly referred to as "brain drain," has a multitude of contributing factors and impacts for the state. Reasons for why

educated millennials choose to leave the state oftentimes include too few diverse job opportunities, poor infrastructure, and/or an unwelcoming sociopolitical environment (Davis, 2018). Mississippi performs poorly in state rankings, often ranking last in median family income, education, and overall health (Opportunity Index, 2017). The high rate of millennial population loss has significant negative impacts for Mississippi, as the cycle of poverty, poor education, and inadequate health outcomes would continue due to a limited educated population that can provide solutions. Mississippi has lost \$1.5 billion in total income due to out-migration of its residents from 2011 to 2015 (Davis, 2018). Brain drain can have an effect on language barriers in healthcare by limiting the pool of qualified interpreters and bilingual providers since the most educated individuals are leaving the state at a high rate. An insufficient number of active physicians paired with significant out-migration of educated young adults has negative implications for Mississippi, as it faces becoming an even more medically underserved state. As the number of LEP patients continues to grow in the state, there is a growing need to ensure that this at-risk patient population has equal access to healthcare, even in a medically underserved state.

Literature Review

Right to Health and Healthcare

The right to health is considered a fundamental human right. This right was first internationally articulated in the 1946 Constitution of the World Health Organization (WHO) which stated that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition” (World Health Organization & Office of the United Nations High Commissioner for Human Rights, 2008). Since this first declaration, other international human rights treaties have also documented the right to health, and every country has ratified at least one of these international human rights treaties (World Health Organization & Office of the United Nations High Commissioner for Human Rights, 2008). Additionally, the United Nations more broadly recognizes the fundamental human right to health. The UN outlines human rights that are inherent to all human beings in the Universal Declaration of Human Rights (UDHR), which was first adopted in 1948 and articulates rights to all human beings “regardless of race, sex, nationality, ethnicity, language, religion, or any other status” (UN General Assembly, 1948). Since 1948, this document has been translated into more than 500 languages, making it one of the most translated documents in the world. Article 25 of the UDHR states that “everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services” (UN General Assembly, 1948). After the passage of the UDHR, the UN proposed another treaty including health care in 1966: The Covenant on Economic, Social and Cultural Rights (CESCR). Article 12 of the CESCR clarifies the right to health by stating “the States Parties to the present Covenant recognize the right of

everyone to the enjoyment of the highest attainable standard of physical and mental health” (UN General Assembly, 1966). The treaty was signed by all UN countries, and it was ratified by all countries except three – Palau, Comoros, and the United States (Gerisch, n.d.). All nations that signed to CESCRR are subject to periodic review of progress on the human rights so protected, and the UN High Commissioner of Human Rights reviews progress on rights protected by the UDHR (Gerisch, n.d.). In 2015, the United States report to the UN failed to recognize health as a human right and instead refers to health rights as “health measures” (Gerisch, n.d.).

A human rights-based approach to health would present a clear outline of principles and guidelines in ensuring effective health policy and service delivery (i.e. healthcare) in addition to addressing discriminatory practices that can result in inequitable health outcomes. As outlined by the WHO, the core principles of human rights are as follows: accountability, equality and non-discrimination, and participation. The core components to specifically the right to health include availability, accessibility, and quality (WHO, 2017). The core principle of non-discrimination seeks to guarantee human rights, such as access to healthcare, to all individuals regardless of “race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status, sexual orientation, and civil, political, social, other status” (WHO, 2017).

When interpreted as a fundamental human right, healthcare should be accessible to all human beings regardless of language preference and ability. In the United States, a critical issue that prevents full access to healthcare is limited English proficiency as almost 10 percent of the population has LEP (U.S. Census Bureau, 2017b). With the number of non-English speakers living in the United States on the rise, there is increasing

pressure, and thus increasing legal obligations, to ensure equal access to quality healthcare. Federally, the legal foundation for providing language assistance services to LEP patients lies in the 1964 Civil Rights Act. Title VI of the 1964 Civil Rights Act states, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program and or activity receiving federal financial assistance” (Chen, Youdelman, & Brooks, 2007). Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance, meaning that hospitals receiving federal funding (e.g., providers who accept Medicare or Medicaid patients) are required to provide language services.

This non-discrimination policy was further articulated by the Department of Health and Human Services (DHHS) in 1980 in a notice that states “No person may be subjected to discrimination on the basis of national origin in health and human services programs because they have a primary language other than English” (Chen et al., 2007). The HHS Office for Civil Rights (OCR) is responsible for enforcing the Civil Rights Act in relation to health services and investigates any complaints regarding language barriers.

The legal right to language access was reinforced in 2000 by President Clinton’s Executive Order 13166 entitled, *Improving Access to Services for Persons with Limited English Proficiency*. This executive order echoed Title VI of the Civil Rights Act and mandated that all federal agencies provide equal and appropriate access to LEP individuals. This executive order also required that federal agencies review their own policies and services to ensure adequate access to language services for LEP persons (Basu, Costa, Jain, 2017; Grubbs, Chen, Bindman, Vittinghoff, & Fernandez, 2006). In

response, the U.S. Department of Health and Human Services' Office for Civil Rights (OCR) released guidelines for healthcare providers receiving federal funding on how to ensure language access, "including provision of competent (i.e., trained) interpreters at no cost to LEP patients who cannot communicate with their providers" (Grubbs et al., 2006). However, these guidelines allowed significant flexibility in how to achieve these requirements and failed to provide additional resources (Grubbs et al., 2006).

Final rules on language access were released in response to the Patient Protection and Affordable Care Act of 2010 by the Department of Health and Human Services Office of Civil Rights in 2016. Section 1557 of the Affordable Care Act is a non-discrimination provision that "prohibits discrimination on the basis of race, color, national origin, sex, age, or disability in health programs and activities, including those that receive federal funding" (DHHS, 2016). This provision assists populations that are vulnerable to discrimination and ensures their equal access to healthcare. These rules extended previous mandates that require federally funded organizations to make language services available and explicitly requires insurers and healthcare institutions to provide written translation and interpreting services for limited English proficiency individuals of qualifying language groups. One major change of this provision is that healthcare providers are required to offer "qualified interpreters" to patients with LEP, which would outlaw the use of informal, ad hoc, or untrained interpreters (DHHS, 2016). The term "qualified interpreter" refers to an individual who demonstrates a high level of proficiency in English and the language of the LEP patient and has the appropriate training to interpret with skill and accuracy while adhering to a code of ethics (DHHS, 2016). Covered entities are also required to post a notice of individuals' rights providing information about communication assistance for individuals with LEP and to post

taglines in the top fifteen languages spoken by individuals with LEP nationally, indicating availability of such assistance (DHHS, 2016). All hospitals depend considerably on federal funding and are thus required to provide language services according to law (Schiaffino et al., 2016). Healthcare providers may be unclear about these legal obligations, do not prioritize this issue, are not held accountable, and/or lack sufficient resources to meet the law, which results in deficiencies in aid to patients with LEP.

Effects of Language Barriers on Healthcare

For LEP patients, language barriers are a fundamental contributor to disparities in healthcare. Patients who do not speak English well have less access to a primary source of care, report lower rates of physician visits, and use of preventive services (Brach et al., 2005; Karliner et al., 2010; Flores et al., 2002; Ku & Flores, 2005). Even when access to care is available for LEP patients, they suffer from poorer adherence, decreased comprehension of their diagnoses, higher rates of readmission, and dissatisfaction with the patient-provider relationship (Flores et al., 2002; Karliner et al., 2010). Patients with limited English proficiency are “more likely than others to report being in fair or poor health, defer needed medical care, leave the hospital against medical advice, miss follow-up appointments, or experience drug complications” (Ku & Flores, 2005). Language barriers also result in difficulties acquiring consent (Flores et al., 2002). Ineffective communication can lead providers to engage in inefficient care and costly practices such as, delayed or incorrect diagnoses, diagnostic procedures, more invasive procedures, and overprescribing medications, often leading to greater medical complications (Ku & Flores, 2005). Research shows that even after controlling for factors such as health status,

health insurance, ethnicity, socioeconomic variables, and literacy, language barriers impact the quality of care LEP patients receive.

Several cases of medical malpractice have come as a result of failure to provide a professional interpreter to a non-English speaking patient (Kempen, 2007). One study noted that one out of every 40 malpractice claims were related, all or in part, to failure to provide appropriate language interpreter services (Quan & Lynch, 2010). In one case in Phoenix, Arizona, 13-year-old Gricelda Zamora usually served as her Spanish-speaking parents' interpreter, but when she developed severe abdominal pain herself, her parents took her to the hospital, and Gricelda was too ill to interpret for herself (Chen et al., 2007; Kempen, 2007). The hospital staff and Gricelda's parents were unable to communicate, leading to misunderstandings on both the provider and the patient end. Gricelda died of a ruptured appendix after physicians failed to treat her due to language barriers that caused a delayed diagnosis. The family filed a lawsuit against the hospitals and doctors due to the improper medical care that their daughter received. In another case, 18-year-old Willie Ramirez was rushed to the hospital after losing consciousness (Kempen, 2007). His mother and girlfriend used the Spanish word "intoxicado" to describe his condition to hospital staff. However, the staff in the emergency department did not speak Spanish and interpreted this word to mean the false cognate "intoxicated," when in reality, this word in Spanish can just mean "ingested something," such as a case of food poisoning. The doctor made a diagnosis of drug overdose because of this incorrect translation, but nearly three days after his admission, it was found that Willie was actually experiencing bleeding in his brain. Because of this delayed diagnosis, Willie was left with quadriplegia. After suing the hospital, paramedics, emergency department, and attending physicians for medical malpractice, Willie's settlement topped \$71 million. Without the

use of a professional interpreter, physicians may fail or delay ordering the necessary diagnostic tests or their patients and risk medical malpractice.

Limitations in Policy

Healthcare providers are federally required to provide language access services under Title VI of the Civil Rights Act of 1964 and Section 1557 of the Affordable Care Act, yet limitations in policy and lack of hospital guidelines continue to result in a deficiency of language services in healthcare. The first limitation in policy is that the United States fails to recognize the right to health in its reports to the UN and “continues to violate the UDHR with a system that discriminates against minority groups and/or all in poverty” (Gerisch, n.d.). As a result, the U.S. fails to ensure and protect the human right to health care. Additionally, the standards in the final rule are flexible and vary depending on the health program (Tang, Kruger, Quan, & Fernandez, 2014). This lack of standardization results in unclear responsibilities and weak enforcement of providing quality services.

Limited knowledge among providers of the federal and state laws that require them to provide interpreter services remains a major obstacle to minimizing language barriers for LEP patients. In addition to providers not being completely aware of their requirements under the federal mandate, many patients are also unaware of their own right under the law (Grubbs et al., 2006). The Department of Health and Human Services strongly encourages the use of a language access plan for hospitals and considers whether providers’ have implemented one when evaluating compliance, but under the final rules of the Affordable Care Act, language access plans are not necessarily required (DHHS, 2016). Furthermore, mandatory employee training on the new Affordable Care Act

regulations is also not required, which can result in healthcare providers not fully understanding their legal requirement to provide language services for their patients.

Although healthcare facilities must make interpreters available, the use of professional interpreters is not necessarily ensured. Interpreter services may be available at a hospital, but “the integration of professional interpreters into hospital care is often left to the discretion of individual physicians” (Tang et al., 2014). In one survey of patterns of interpreter use among resident physicians, 71 percent reported using professional interpreters for fewer than 60 percent of hospital encounters with LEP patients (Tang et al., 2014). In Tang’s study, only 10 percent of residents reported consistent use of professional interpreters in hospital encounters with LEP patients. The underuse of professional interpreters is reportedly common, as many providers choose to rely on other methods of communications such as one’s own limited language skills or ad hoc interpreters (Tang et al., 2014; Rice, 2014). The use of uncertified interpreters such as ad hoc interpreters or bilingual clinical staffers is discouraged, but physicians and hospital staff often overlook or work around these policies for various reasons including “time pressures, lack of knowledge about the availability of professional interpreters, or procedural difficulties in arranging for interpreters” (Rice, 2014).

Training and Licensure. The Office of Civil Rights does not require interpreters to be certified or licensed to be deemed as “qualified” (DHHS, 2016). Regarding Section 1557, commenters suggested that the OCR require interpreters to be licensed in the state where they provide services or to be certified by a national nonprofit certification organization. However, the office declined to accept these recommendations and instead states, “Although OCR considers licensures and certification as evidence than interpreter is qualified, licensure and certification are neither necessary nor sufficient evidence for

qualification” (DHHS, 2016). Reasons for not requiring licensure or certification include “not wish[ing] to unduly narrow the pool of qualified interpreters available to a covered entity by requiring certification or licensure,” variable standards among certification programs with “no assurance that such standards would consistently meet the standards of Section 1557,” and factors beyond licensure and certification that could make the OCR deem an interpreter unqualified (DHHS, 2016).

The policies in place to address language access in healthcare lack enforcement and clear ways to implement language services. Researchers continue to worry that monitoring language services in the United States is inconsistent, and language-related errors may continue to go unreported (Rice, 2014). Because patients with limited English proficiency are less likely than English speakers to report problems due to inadequate language access, it is difficult to assess how well U.S. providers are treating LEP patients (Rice, 2014).

Interpreter/Language Services

Benefits of Language Services. The use of an interpreter or bilingual provider results in increased understanding of diagnoses, compliance with medical instructions, increased healthcare delivery, and improved health outcomes (Jacobs et al., 2001). LEP patients who are provided with interpreter services have been documented to make more outpatient visits, receive and fill more prescriptions, have higher satisfaction with care, and have health outcomes that match those of English-proficient patients (Ku & Flores, 2005; Baker et al., 1998). Though the use of an interpreter certainly helps mitigate language barriers, a bilingual provider benefits LEP patients to an even greater extent as these patients are reported to ask more questions, be more comfortable discussing

sensitive or embarrassing information, and have higher patient satisfaction (Ku & Flores, 2005; Brach et al., 2005).

Availability/Accessibility. As a result of limitations in policy and a lack of sufficient incentive to provide interpreter services, fewer than two out of three U.S. hospitals nationwide provided language services to patients in 2013 according to the American Hospital Association Annual's Survey of Hospital database (Schiaffino et al., 2016). Of the hospitals in service areas that demonstrated a significant (high or moderate) need for language services, about 25% did not offer language services. Of hospitals in service areas with low need, over 33% did not offer language services (Schiaffino et al., 2016).

According to an analysis of data from the American Hospital Association database and the Census Bureau's American Community Survey in 2013, the majority of counties in Mississippi exhibit a "low need" for language services, which signifies that less than 5 percent of a county's population has limited English proficiency in English (Schiaffino et al., 2016). Because of a perceived "low need," hospitals may unjustly assume a low need to provide language services to their patients. Nonetheless, this assumption ignores patterns of an increasing population of limited English proficiency in the United States, including Mississippi, as well as growing migration of LEP individuals. Hospitals in counties with a greater non-English speaking population will be more likely to implement the use of language services. However, hospitals that treat greater proportions of Medicaid or Medicare patients, which is a common case in Mississippi, should be more likely to adopt language services due to the federal mandate that requires federally-funded hospitals to do so.

Limitations of Interpreter Services. Although the use of an interpreter certainly plays a role in minimizing language barriers between patient and provider, the availability of an interpreter does not completely mitigate the existence of these barriers. The use of an interpreter may hinder the growth of a patient-provider relationship and may also pose a financial burden on the healthcare facility (Baker et al., 1998; Wolz, 2015). Other limitations of interpreter services, as previously mentioned as current limitations in policy, include a lack of proper training of interpreters that can lead to adverse health outcomes as well as a lack of accountability to provide quality interpreter services (Flores et al., 2012). The pool of interpreters may also be limited in areas with lower language diversity and states with considerable net out-migration of people with higher levels of education, such as Mississippi.

The presence of an interpreter can complicate the interaction between patient and provider and weaken trust relations by adding an outside third party (Wolz, 2015). Both the patient and provider may pay too much attention to the interpreter and lose important details of communication such as body language and lose the opportunity to form a personal one-on-one relationship (Wolz, 2015). By adding a third party to the patient-provider interaction, an interpreter may make the patient feel uncomfortable, especially when the patient needs to convey sensitive information to his or her provider. Trust plays a key role in the patient-provider relationship, but an interpreter can make it challenging for a patient to form a meaningful relationship with his or her provider (Wolz, 2015). A weak relationship between patients and providers is linked to decreased patient satisfaction, compliance, and adherence (Baker et al., 1998; Wolz, 2015). One study revealed that having a clinical interpreter present during language-discordant visits did not mitigate the disparity in the quality of interpersonal care compared to that of

language-concordant visits. Patients who used an interpreter were two times more likely to rate their provider as “fair” or “poor” compared to those with language-concordant providers (Ngo-Metzger et al., 2007). Thus, Ngo-Metzger et al. suggest that having language concordance between patients and provider as the optimal solution if the provider received proper medical interpreter training in the language.

Although having language concordance between patients and providers is not always feasible, the use of a qualified, professionally trained, and culturally-competent interpreter is the next possible solution. Because federal law does not require interpreters to be certified or licensed, there is excessive flexibility in what qualifies an interpreter to be considered “qualified.” One study found that interpreters who lacked sufficient training produced many interpretation mistakes, including “omitting, adding or substituting words, adding their own perspectives, or using idioms, words or phrases that didn’t exist in the patient’s language” (Flores et al., 2012). This 2012 study revealed that 18 percent of these interpretation mistakes had potential clinical consequences (Flores et al., 2012). Without having the proper training, an untrained interpreter or may not be familiar with certain medical terminology and risk making mistakes with clinical consequences. For example, a provider could give a patient a prescription for suppositories, but an untrained interpreter may be too embarrassed to admit that he or she does not know the word for “suppository” in the patient’s language and instead use the word for “pill.” The patient would then take the medication orally and risks ending up in the emergency room. Being bilingual does not warrant qualification to serve as a medical interpreter, but because federal law is flexible in its definition of a “qualified” interpreter, many hospitals and other healthcare facilities rely on non-certified interpreters.

The availability of an interpreter alone does not resolve every problem that language barriers can bring. Other than availability, the quality of interpretation and accountability to ensure its quality and accuracy are other important factors involved in minimizing language barriers. Research has shown that differences in language as well as culture have profound effects on clinical care, including miscommunication, poor continuity of care, less preventive screenings, difficulties acquiring informed consent, delayed immunizations, and patient dissatisfaction (Brach et al., 2005; Karliner et al., 2010; Flores et al., 2002). One ethnographic study of Navajo traditional healers, biomedical healthcare providers, and laypersons revealed that normative cultural values can substantially differ from Western bioethical perspectives (Carrese & Rhodes, 1995; Flores et al., 2002). The Navajo concept of *hozhooji* is the view that language has the power to control events and shape reality, making it important to speak in a positive way to avoid harm. In the Navajo culture, it is expected that healers and patients speak about health in a positive way, so when a Navajo man in the United States was told by his surgeon that he faces the risk of not waking up, the patient received this precaution as a “death sentence,” resulting in him not giving consent to the surgery (Carrese & Rhodes, 1995). Language and culture are in direct relationship with one another, and a lack of cultural competency can undermine quality of care.

Use of Ad Hoc Interpreters. Ad hoc interpreters include non-qualified interpreters such as family members, friends, untrained staff, or strangers. Although the use of ad hoc interpreters is illegal under federal law and hospitals are quick to publicly oppose the use of unqualified interpreters, the use of ad hoc interpreters is common in cases when a professional interpreter is unavailable (Karliner et al., 2010; Rice, 2014; Jacobs et al., 2001). Ad hoc interpreters provide a seemingly easy and convenient

solution to communication with a LEP patient. Ad hoc interpreters are also less costly than trained interpreters. There is a clear danger in using ad hoc interpreters as they are significantly more likely to commit errors that can potentially lead to clinically significant adverse consequences such as omitting questions about drug allergies or leaving out instructions on prescription dose, frequency, and duration (Ku & Flores, 2005; Flores et al., 2012). Ad hoc interpreters may also pose a conflict of interest if the interpreter and patient know each other.

Physicians have the ethical and legal responsibility to protect the privacy of their patients. Thus, when a physician uses the service of an interpreter, they must ensure that the interpreter is professionally trained and will also protect the privacy of the patient. However, when an informal, or ad hoc, interpreter is used, unauthorized disclosure of a patient's personal medical records can make physicians liable for breach of a patient's privacy rights. Without a qualified interpreter or provider, "good informed consent is impossible" (Basu et al., 2017, p. 247). Healthcare professionals face potential civil liability if they fail to provide qualified interpreters, especially if such failure leads to a tort cause of action, such as lack of informed consent, breach of duty to warn, or improper medical care (DeCola, 2010).

Research Questions

Informed by the literature, this study seeks to understand how healthcare facilities in Mississippi are approaching language barriers with LEP patients and to assess the accessibility of interpreter services being used in the state.

- What are the LEP relevant sociodemographic and health characteristics of people living in Mississippi and the two focus counties?
- What training for how to work with LEP patients currently exists for healthcare providers and interpreters?
- How do interpreter services differ between hospitals and clinics? How do these services differ between urban and rural counties?
- What methods of interpretation are health facilities currently using when treating LEP patients and how effective are these methods?
- What do Mississippi healthcare professionals who have worked with LEP patients see as the best solutions to mitigating language barriers in the future?

Methods

To address the research questions, I conducted a multi-method case study entailing information on LEP relevant issues in Mississippi in general and in two specific sites – a rural Delta county and an urban central county (names are withheld here to protect the confidentiality of key-informants). According to Yin (2014), a case study is an “empirical inquiry that investigates a contemporary phenomenon (“the case”) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (p. 16). Yin (2014) notes that a case study inquiry “relies on multiple sources of evidence” and is not limited to one single research method (p. 17). Building from Yin’s (2014) call for case studies to entail the use of multiple research methods, beyond the policy research already reviewed in the previous chapter, my study entailed compiling and analyzing sociodemographic profiles; data and reports on hospital closures, public health consolidation, and the roles of community health centers; key-informant interviews; health providers’ web content; and a personal visit to a hospital, community health worker training, and community health center in the Delta region.

One method of this research involved compiling secondary public access data to inform sociodemographic profiles of two counties using data from the U.S. Census Bureau’s American Community Survey 2017 five-year estimates and 2017 vintage population estimates coupled with the University of Wisconsin Applied Population Laboratory’s Net Migration for US Counties data. The two focus counties were selected after interviewing individuals who work in these counties and finding that language services in Mississippi can vary depending on the county and whether the facility is a clinic or a hospital. For the sociodemographic analysis, I focused on variables of

population origin, language, education, income, and health. I also compiled data on net migration for the two focus counties.

The sociodemographic profiles were followed with data and reports on health access and delivery in Mississippi based on rural hospital closures, the consolidation of public health districts, and the reliance on community health centers in Mississippi. Using public access web data and news articles, I compiled information to give greater context to Mississippi's health crisis and how it limits access to medical care.

Another part of the research design for this project consisted of a qualitative telephone interview-based study with a convenience sample of key-informants based on professionals' expertise specifically related to their role in healthcare. To gain perspective on the ways in which language barriers impact healthcare and the patient-provider relationship, I interviewed physicians, medical interpreters, and health administrators working in hospitals, community health centers, and clinics in the focus counties. Interviewees answered questions about their experiences communicating with patients with limited English proficiency as well as their experiences using medical interpreter services. I also asked questions regarding the quality of these services and their effects on the patient-provider relationship. Specific questions about facility resources were also asked. The complete list of interview questions is included in Appendix 1. This research process was approved through the University of Mississippi Institutional Review Board.

I conducted structured interviews in which I prepared a list of open-ended questions to ask each participant. The use of a structured interview instrument allows for comparison across different interviews, so that common themes can be extracted. Eight interviews were conducted over the phone, which allowed for the opportunity to ask

follow-up and clarifying questions when necessary. The use of a qualitative interview allows for more depth and breadth in responses as questions were open-ended.

All participants were chosen using a non-probability yet strategic key-informant approach. The way in which interviewees were recruited for this study was dependent on individuals' roles in healthcare and their experiences with LEP patients. After exploring websites of various health facilities in Mississippi, I found healthcare professionals whose roles and experiences would be useful for my study. Examples of individuals' roles include physicians, language access advocates, medical interpreters, and health administrators. Interviewees worked for clinics, hospitals, and public health agencies. I recruited interviewees via email and/or phone and then scheduled interviews to be conducted over the phone. Each interview took approximately 30-45 minutes to complete and was audio recorded for accuracy, and written notes were also taken during the interview. Following the interviews, I developed complete transcriptions in order to gather more thorough information and to extract quotes of illustrative examples for the findings section.

Following the interviews, I compiled and coded the results to condense data, identify patterns, and keep interviewees' individual information confidential. I analyzed the interview responses through the written notes recorded and the complete transcriptions to identify any similarities or trends. I used these results to determine the overarching themes to be included in my findings section.

An additional part of this research included studying whether the key-informants' healthcare facilities advertised interpreter services on their websites. Systemically using search terms such as "interpreter," "translator," "language service," and "Spanish," I used the search engine provided on the clinic or hospital's website to record whether

information regarding interpreter services was accessible and available online. I also analyzed the website's homepage to see if any other information was listed regarding language assistance services. I took written notes for what I found on each site, indicating what the site offered and lacked with respect to information regarding LEP patients and interpreter services.

To conclude my research, I traveled with my thesis advisor, Dr. John Green, to the Mississippi Delta to visit a rural hospital and a community health center. I also observed part of a community health worker training session that was organized by the community health center. My previous shadowing experience was limited to hospitals and clinics in Jackson, and this visit to the Delta allowed my perspective on healthcare to expand as access and quality of healthcare can vary depending on the community context. During this visit, I engaged in discussions with healthcare professionals and community members regarding what Delta communities and organizations need to achieve better healthcare. I also gained insight into the role of language barriers in healthcare specifically in rural communities by learning about the effectiveness of resources that are currently in place and what community health advocates are hoping to change in the future. Through this experience, I developed a better understanding of rural communities and their efforts to achieve better quality healthcare.

Findings

Sociodemographic Profiles

Table 1 shows the population counts and characteristics for the two case counties as well as for Mississippi and the United States. One county is in a rural region with smaller population centers, while the other county is in a larger population metropolitan area. Population variables include origin, language, education, income, and health.

Table 1. Sociodemographic Profiles of Rural Delta County and Urban Central County in Mississippi

	United States	Mississippi	Rural Delta County	Urban Central County
Total population	321,004,407	2,986,220	24,300	243,250
ORIGIN				
Foreign-born	43,028,127 (13.4%)	68,894 (2.3%)	90 (0.3%)	4,350 (1.8%)
Hispanic or Latino origin	56,510,571 (17.6%)	88,261 (3.0%)	40 (0.1%)	3,640 (1.5%)
Percent foreign-born and of Hispanic or Latino/a/x origin	19,405,685 (45.1% of foreign-born population)	32,173 (46.7% of foreign-born population)	Data unavailable	Data unavailable
LANGUAGE				
Speak a language other than English at home	64,221,193 (21.3%)	109,237 (3.9%)	280 (1.2%)	6,680 (2.9%)
Speak English less than “very well”	25,654,421 (8.0%)	43,535 (1.5%)	70 (0.3%)	2,700 (1.1%)
EDUCATION				
Percent of adults 25 years + high school graduate or higher	87.3%	83.4%	78.0%	86.0%
Percent of adults 25 years + bachelor’s degree or higher	30.9%	21.3%	17.0%	29.0%

Table 1 (continued).

INCOME	United States	Mississippi	Rural Delta County	Urban Central County
Median household income	\$57,652	\$42,009	\$28,730	\$41,000
Percent families whose income in the past 12 months is below poverty level	10.5%	16.6%	31.0%	19.0%
HEALTH*				
Percent of adults reporting fair or poor health	16%	22%	29%	22%
Teen births (per 1,000 female population ages 15-19)	25	39	71	41
Low Birth Weight	8.0%	11.7%	19.0%	15.0%
Percent of adults reporting obesity (BMI ≥ 30)	29.0%	37.0%	43.0%	36.0%
Percent of adults reporting Type 2 diabetes	8.6%	13.0%	15.0%	12.0%
Percent uninsured	10.5%	17.1%	17.0%	16.0%
Primary Care Physicians (Rate per 100,000)	91.7	64.5	58.0	75.0

Sources: U.S. Census Bureau American Community Survey, 2017 five-year estimates; *MSDH County Health Profiles, 2018; *Mississippi Statistically Automated Health Resource System (MSTAHRs), 2010-2014; *MS Health & Hunger Atlas, 2017; *Association of American Medical Colleges, 2017; *University of Wisconsin Population Health Institute, County Health Rankings State Report 2019; *CDC Diabetes Interactive Atlas, 2015

Numbers for counties are rounded to protect the confidentiality of key-informant interviewees.

As Table 1 shows, Mississippi's foreign born and Hispanic or Latino/a/x origin population percentages are lower than that of the United States. However, almost half of Mississippi's foreign-born population is of Hispanic or Latino origin, which compares to

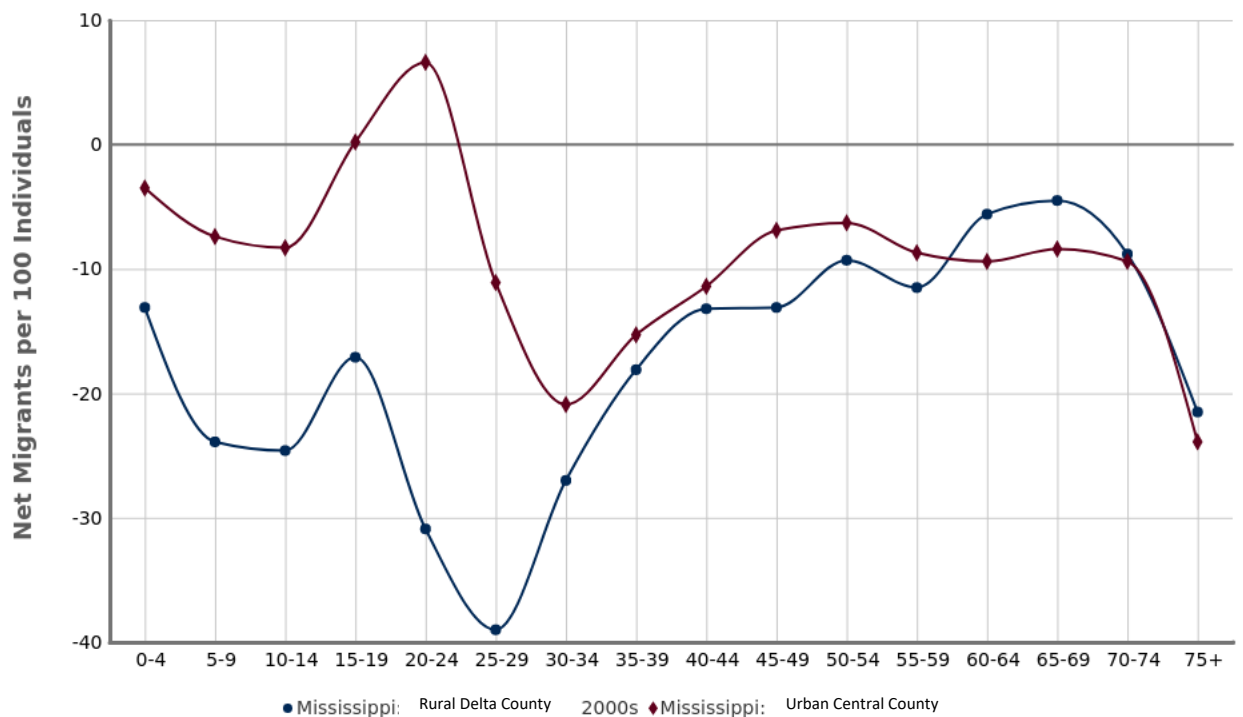
the national percentage. The urban county has a greater population of LEP individuals and individuals who speak a language other than English at home than the rural county. Education and income numbers are lower in Mississippi compared to the national averages, especially in the rural county.

As for health outcomes, Mississippi fares much worse than the United States on all health-related variables. Table 1 reveals that the rural Delta county has a poorer health status than the central urban county.

Figure 1 shows the net migration rates by age in a rural Delta county and an urban central county in Mississippi. A positive count of net migrants denotes more migrants are entering than leaving whereas a negative count indicates that more migrants are leaving than entering.

Figure 1. Net Migration by Age in Rural Delta County and Urban Central County in Mississippi, 2000-2010

Net Migration by Age



Winkler, Richelle, Kenneth M. Johnson, Cheng Cheng, Jim Beaudoin, Paul R. Voss, and Katherine J. Curtis. Age-Specific Net Migration Estimates for US Counties, 1950-2010. Applied Population Laboratory, University of Wisconsin - Madison, 2013. Web.

Figure 1 demonstrates that for nearly all age groups, the net migration rates for both counties were negative, revealing that more people were leaving than entering these two counties during the 2000 to 2010 period. The net migration rates appeared to be the lowest for young adults (25-29 and 30-34 years old). Comparing the two counties, the rural county shows a more significant loss in net migration for nearly all age groups.

Table 2 shows migration data for the rural Delta county and the urban central county in Mississippi as well as for the state. The data in the table include statistics for Hispanic net migration and overall population changes, which comprises of both vital events and net migration.

Table 2. Migration Data for Rural Delta County and Urban Central County in Mississippi

	Mississippi	Rural Delta County	Urban Central County
Hispanic Net Migration (per 100) for 2000 to 2010*	51	-10	40
COMPONENTS OF POPULATION CHANGE 2010 THROUGH 2018			
Total Population Change	15,997	-3,500	-8,280
Natural Increase	60,514	930	9,620
VITAL EVENTS			
Births	279,716	3,400	27,000
Deaths	219,202	2,480	17,380
NET MIGRATION			
Total	-45,155	-4,490	-18,050
International	14,512	-10	2,080
Domestic	-59,667	-4,480	-20,120

Sources: U.S. Census Bureau, 2018a; *Winkler et al., 2013. Numbers for counties are rounded to protect the confidentiality of key-informant interviewees.

With regards to Hispanic net migration, Figure 1 shows a net decrease for the rural Delta county and a slight net increase for urban central county. While neither focus county shows a major increase in Hispanic net migration, surrounding counties have high

Hispanic net migration rates. One county (not shown) bordering the rural Delta county has a nearly 600 per 100 Hispanic net migration rate, and another county that borders the urban central county has an over 100 per 100 Hispanic net migration rate (Winkler et al., 2013). Mississippi overall has a positive Hispanic net migration rate. More Hispanic individuals are entering the state, increasing the Spanish-speaking population and the need for interpreter services. For both counties and the state overall, Figure 1 shows a notable negative total net migration, signifying that more people are leaving than entering. The urban county and state overall have experienced an increase in international net migrants but an even larger decrease in domestic net migration, resulting in negative total net migration rates. From Figure 1, we see that the greatest loss in migrants coming from the young adult age group, which shows that likely young educated professionals are quickly leaving the state, especially rural counties. Compared to the size of the population, the rural county is experiencing an even larger net out-migration than the urban county. Both focus counties demonstrate an overall population loss due to negative net migration rates. The gain in Hispanic net migration paired with the notable loss in domestic net migration demonstrates the growing need for interpreter services for LEP patients as the state continues to lose likely educated young adults.

Mississippi Rural Hospital Closures

Mississippi has more rural hospitals that are at risk of closing than any other state in the country (Campbell, 2019). Almost half of Mississippi's rural hospitals are at risk of closing, with 31 out of 64 rural hospitals in the state exhibiting a "high financial risk," according to a national report released in February of 2019 (Moseley & DeBehnke, 2019). Nationally, 21 percent of rural hospitals are at risk of closing, whereas the risk is

48 percent for Mississippi's rural hospitals, more than twice the national rate. Since 2010, five rural hospitals have closed in Mississippi, tying it for fourth in rural hospital closings nationwide (Campbell, 2019). Of the hospitals that are currently at risk of closing in Mississippi, 61 percent are considered essential to their communities (Moseley & DeBehenke, 2019).

Various ever-changing economic, policy, and population factors lead rural hospitals to close (McDoom, Chang, Gnuschke, & Mirvis, 2015). Internal (hospital) and external (market and policy) factors play a role in rural hospital closures. These internal factors associated with hospitals include poor financial health, aging facilities, low occupancy rates, fewer medical services, low proportion of outpatient revenue, and difficulties recruiting and retaining staff (Kaufman et al., 2015). External factors include measures of competition as well as socioeconomic factors such as high proportions of Medicaid or racial and ethnic minority residents and markets with high poverty and uninsured rates (Kaufman et al., 2015). Another reason for rural hospital closures in the state can be a lack of Medicaid expansion, as Mississippi is one of 14 states that has not opted for Medicaid expansion, which has resulted in an increasing uninsured population (Wright, 2018).

The impact of rural hospital closures is of high concern because rural hospitals in Mississippi are located in counties that are smaller, poorer, and less healthy than other counties and have higher proportions of population subgroups that are considered to be at-risk for health-related concerns (McDoom et al., 2015). Of the five hospitals that have closed in Mississippi since 2010, three were the only hospital in their county, forcing at-risk patients to now have to drive even longer distances to reach medical services (Gibson, 2019). From the healthcare perspective, rural hospital closures have detrimental

health effects on the community by reducing access to medical care in areas of high need and by lowering recruitment of physicians to areas with already significant shortages in healthcare professionals (McDoom et al., 2015). From an economic standpoint, research also shows that the closure of the sole hospital in the community reduces per-capita incomes and increases unemployment rates (Holmes, Slifkin, Randolph, & Poley, 2006).

In 2018, Northwest Mississippi Regional Medical Center (NMRMC) in Coahoma County was at risk for closure (Wright, 2018). The only hospital in Quitman County, a county that borders Coahoma, closed in 2016 (Rubio, 2016). Quitman Hospital was a critical access hospital and the only medical facility in a 20 to 25-mile radius of the area (Rubio, 2016). Now, patients who previously were treated in Quitman have to travel to Coahoma to seek care.

Due to severe budget cuts, the Mississippi Department of Health was forced to close six of its nine public health district offices in 2017 (Campbell, 2017). This consolidation of public health districts came as a result of a \$12 million budget cut, a 72 percent loss in budget. Consequently, the MSDH had to reduce jobs and agency expenses in administrative areas in addition to certain medical services such as childhood immunizations (Campbell, 2017). Even prior to this consolidation, the department cut 81 county health offices down to 72 in 2016 (Campbell, 2017). Public health district consolidation in addition to rural hospital closures has made access to healthcare in Mississippi a challenge that needs to be addressed.

One policy recommendation made by McDoom et al. (2015) is to adapt new service delivery models to stabilize healthcare in rural Mississippi. An alternative service delivery model that McDoom et al. suggest is the expansion of telehealth, which connects rural and underserved populations to virtual medical care (2015). The Center for

Telehealth at the University of Mississippi Medical Center has partnered with over 100 sites and has over 30 medical services (McDoom et al., 2015). However, limitations to telehealth in rural areas include adequacy of broadband internet and startup costs. Additionally, McDoom et al. recommend the use of hybrid models, which focus on preventive care and primary care services to reduce the need for emergency department use. This model can include increasing capacity of rural health clinics and community health centers (2015).

Community Health Centers

The American community health center (CHC) concept originated in the Mississippi Delta over 50 years ago. The first rural community health center opened in 1966 in the Mississippi Delta (Nunnery, 2017). CHCs aim to reduce health disparities associated with poverty, race, language, and culture (Adashi, Geiger, & Fine, 2010). CHCs are dedicated to delivering primary medical, dental, behavioral, and social services to medically underserved populations in medically underserved areas. Seven of ten patients who receive care at CHCs live in poverty, and over half are members of minority groups (Adashi et al., 2010). Additionally, for many of these patients, the CHC is the sole healthcare provider available to them (Adashi et al., 2010). CHCs are known to provide “community-accountable and culturally competent care” and offer translation, interpretation, and transportation services (Adashi et al., 2010). However, challenges to maintaining CHCs include difficulties recruiting and retaining providers, lack of or delay in implementing health information technology, and economic pressures (Adashi et al., 2010).

As a result of their mission to serve the poor and uninsured, CHCs serve a disproportionate share of LEP patients (National Association of Community Health Centers, 2008). The National Association of Community Health Centers (NACHC) surveyed its member health centers and compiled the following findings regarding LEP patients (2008):

- CHCs serve large LEP populations even in states that, on average, have few people with limited English skills. For example, LEP individuals make up only 2.8 percent of Iowa's population, but some CHCs in Iowa have LEP populations that comprise 31 to 60 percent of their total patient populations.
- Three-fourths of CHCs, that provide language access services, estimate that more than ten percent of each of their active patient populations has LEP.
- Language services are offered by CHCs of all sizes; language service needs are not concentrated solely in large CHCs.
- CHCs hire staff to address the language needs of their patient but often find it challenging to recruit them.
- Most CHCs with language services rely on bilingual staff to serve LEP patients: 74 percent use bilingual nonclinical staff, 59 percent use bilingual clinical staff, and 47 percent use staff interpreters.
- For 68 percent of CHC respondents, more than 10 percent of their patients are Spanish-speaking (NACHC, 2008).

Key-Informant Interviews

I interviewed eight healthcare professionals who have all had experience working with LEP patients in various capacities including interpreters, language access advocates,

physicians, managers of language services, health administrators, and clinic directors. All interviewees currently work in Mississippi in hospitals, clinics, or community health centers located in the focus counties or in statewide public health capacities. Interviewees answered questions about the interpreter services in their own facilities and dealing with language barriers in healthcare. Giving first-hand experiences working with LEP patients and interpreter services, interviewees provided insight into the healthcare issue of language barriers in the state of Mississippi and how to minimize these barriers in the future. The following sub-sections summarize the key themes that came from coding the interviews.

Themes.

Healthy patient-provider relationship. A common theme found among the interviews was the need for communication and trust to form a healthy patient-provider relationship. All key-informants indicated that effective communication between the patient and provider is essential to ensure the delivery of safe, high-quality healthcare, to foster the patient-provider relationship, and to acquire consent. When asked “What is essential to the patient-provider relationship?,” one interviewee stated,

“Definitely effective communication and building trust. That’s definitely essential for the patient to really believe in everything you’re telling them, believe that this is a proper prognosis, this a proper treatment that I need[...] But that none of that can be done unless you have that effective communication with that patient and they fully comprehend and understand and voice understanding that they will do it.”

Another interviewee responded by saying,

“Trust. Trust on both ends. Having an open, clear communication with one another. When trust and open communication do not exist, you are going to have inaccurate diagnoses and patients who do not comply with the treatment plan that they do not understand. They will continue to have results and outcomes that are negative and detrimental.”

A different key-informant noted the importance of two-way communication by stating,

“The provider has to explain everything in detail in the way that the patient understands. But I also believe that the patient has to be interested and ask questions about what’s going on with them, their treatment, and what to expect. Because sometimes we just go there and deliver all of this information, and we don’t know if the patient really understands and we have to keep asking. And they all say is yes. But they never ask any questions. It goes two ways.”

All key-informants agreed that language barriers have a negative effect on the patient-provider relationship by hindering the ability to effectively communicate.

However, one key-informant noted that even with the use of an interpreter, non-English speaking patients often feel uncomfortable or embarrassed to communicate. This interviewee stated, “You could be having to discuss very private or sensitive information, and then there is an interpreter on the screen or standing next to you. It can sometimes make the patient feel uncomfortable with another person in the room.” It was also noted that language barriers extend beyond the patient-provider interaction as LEP patients often have difficulties navigating the hospital or healthcare facility and are prevented from communicating when an interpreter is not present with them.

Need for Interpreter Services. When responding to the question, “How does the current need for interpreter services compare to previous years?” all key-informants responded in ways implying that there is a clear increase in the need for language access services due to a growing non-English speaking patient population in the state. One interviewee stated,

“The need for interpreters has increased. I can see it in my job and in my community. Even though we live in Mississippi, which is stereotypically known as a rural, non-urban state, there is an influx of immigrants here[...] There is a larger demand each year for services for individuals who do not speak English well[...] I see the need growing more and more for accommodations and for continued education for bilingual professionals and for interpreters who are working in the field.”

Another interviewee noted that 20 years ago, barely any non-English speaking patients sought care in the key-informant's facility, but now the interviewee sees LEP patients every other day, on average.

One key-informant working for a community health center in a rural county explained that the number of Spanish-speaking patients who visit the CHC has increased tremendously. The interviewee states, "When I first arrived five years ago, I noticed we only had about 50-60 [Spanish speakers] who needed an interpreter on-site. Since I have been here, word has traveled[...] Now, I see about 300 Spanish speakers per year." The interviewee also noted that many of these patients will travel long distances to receive care at the CHC.

However, some interviewees mentioned that although the need for interpreters has increased, Mississippi still suffers from a limited pool of qualified interpreters. One interviewee noted that interpreter training sessions are offered by the MSDH regularly, but the past two training sessions were canceled due to low registration. The MSDH is the only licensed site in the state to provide the training required for national certification, yet not enough people are registering to receive this training.

Education and training. Due to a lack of standardization in policy, the level of education and training on how to work with LEP patients varies among healthcare professionals and providers. Many interviewees were quick to say that training and education as a whole need to be improved when responding to the question, "What suggestions do you have to improve communication with patients who have limited English proficiency?" Several interviewees pointed out limitations in proper training or an absence of training altogether. One interviewee responded to the question by stating,

"Definitely on-going training[...] The first time they're face to face with someone who doesn't speak English is when they're hired at my facility, and they're blind-

sided. They're completely ill-equipped and unprepared to deal with it because it's they're first time."

Another interviewee stated that training for the provider on learning what steps to take to access an interpreter is necessary. The interviewee responded to the question by saying,

"Educate the healthcare professional that this [interpreter] service is available and how to reach this service. If you ask me now, 'how do you reach an interpreter?,' I would say, I don't know. I would call the nurse. And I'm not even sure if the nurse knows. And the nurse would maybe have to call her supervisor. And maybe that supervisor has to call someone else until they find the right pathway to reach that service. Better education for the provider could be beneficial."

Several interviewees stated that education from the very beginning needs to be reformed to include greater foreign language education and cultural competency. One interviewee said,

"It's time to add to the curriculum starting in basic courses where these professionals go to school. It needs to be a standard requirement across the board that in the curriculum for the preparation for everyone from just a certified nursing assistant all the way to the cardiologist and the CEO[...] part of their preparation needs to be culturally competency and what is linguistically appropriate, sensitivity to others, and how to work with interpreters[...] we will begin to see a change as these students become practicing professionals[...] we will see a generation of healthcare professionals who are much more sensitive and much more aware and adept to dealing with diverse populations[...] We have to start at the very beginning."

Another interviewee stated,

"I think that at the government level, as in legislature in schools, there should be a recognition that immigrant minority populations are here to stay, and that they need the [interpretation] programs. They should be aware and do more to help the communities. Because in the end, it helps all of us. Health services would hopefully not be as expensive when you have better educated people and better health outcomes."

One interviewee expressed frustration with the level of proficiency in non-English languages and the pool of potential interpreters in Mississippi. This interviewee explained by stating,

“I think, unfortunately, and I hate to say this, but the level of education and/or the level of competency in Spanish is not ideal. A lot of the people who are bilingual interpreters learned Spanish from their family or from hearing it. It’s not their native language maybe and we find that a lot[...] We do not have a language proficiency exam or test as part of the training[...] We work with what we have. Public health... you don’t get picky.”

Technology in interpreter services. The implementation of technology, or telehealth, in interpretation services is a recent development among healthcare facilities. Rather than utilizing an in-person interpreter, video remote interpreting and the telephonic Language Line are commonly used routes when needing to access language services, especially at larger healthcare facilities. It was found through interviews that larger hospitals in urban areas are more likely to implement more advanced technology into their language services due to more abundant resources and a heightened need for accessibility due to a larger and more diverse patient population of a hospital versus a smaller clinic. When asked how common are cases in which an interpreter is unavailable when one been requested, interviewees working for larger, urban hospitals all answered that the unavailability of an interpreter is rare because video remote or telephonic interpreting are now available 24/7. One interviewee stated, “We have enough resources, so we do not condone using any friends, family members, kids, or anybody who is not qualified to interpret.” Another interviewee stated, “the technology has helped us so much[...] the interpreter does not need to be physically in the room.” It was noted that one video remote interpreting service offers 26 languages, and the Language Line offers over 200 languages. All interviewees who have access to these types of interpreter services in larger hospitals reported general satisfaction with the delivery of these services.

As hospitals treat a diverse and large patient population with often critical and time-sensitive medical needs, interpreter services in hospitals need to be widely

accessible and effective. The use of technological innovations in their interpretation methods was viewed by informants as a way that hospitals have expanded and improved access to language services. Recent technological advances have made treating LEP patients more feasible by making interpreter services available 24/7 and by increasing the number of available languages that can be interpreted. The use of technology in interpreting is relatively cost-effective too, as hiring several in-person professional interpreters or multilingual providers for many languages can be financially demanding. In addition to the financial challenge that hiring interpreters brings, finding competent, professional, and certified interpreters can also be troublesome, especially in a state like Mississippi where the pool of interpreters is limited. One interviewee stated, “Unfortunately, we have to be realistic with the population we have to draw from. In more rural states like Mississippi, [...] you work with the best you have.” Video remote and telephonic interpretation provides on-demand access to interpreters and can serve as a cost-effective solution to facilities without the resources or the available pool to hire in-person professional interpreters. Developments in telehealth have allowed for a significant expansion of access to language services that has played a role in minimizing language barriers. A key-informant working for an urban hospital noted that increasing the use of telehealth is one way the hospital is trying to expand their language access services to more rural areas.

On the other hand, the dependence on technology can cause problems when broadband access is limited, such as in rural areas. One interviewee said, “We tried video remote interpreting, but the [clinic] did not have the capacity to make the equipment work [...] We did not have the bandwidth to handle it. It was very frustrating for everyone.” In more rural areas, connectivity can pose a problem when trying to use video

remote interpreting, as the broadband may not be strong enough to support this service. Furthermore, when the phone call with the interpreter ends, so does the ability to communicate between an LEP patient and provider, limiting the opportunity to ask quick follow-up questions or to communicate beyond the patient-provider interaction. Setting up the technology-based services can be time-consuming as one interviewee noted, “I think it works pretty well, except in cases of emergency when you need [an interpreter] right now. You have to call, give patient information, and wait, so it takes a little time.” Another key-informant stated, “Once the video remote interpreting is turned off, [LEP patients] do not communicate as much. They’re embarrassed to ask for additional interpreter help.”

Availability of interpreters. While larger hospitals have the advanced resources to offer extensive technology-based interpreter services, clinics, especially ones in rural areas, are more likely to have to rely on in-person interpreters to provide language access due to a lack of resources and broadband connectivity. However, as a result of a limited pool of qualified interpreters in Mississippi and staffing issues that many rural healthcare facilities face, the availability of an in-person interpreter is not always guaranteed. Interviewees working in rural areas noted that interpreters often have to travel far distances to various facilities to extend the reach of their services.

The impact of rural hospitals in Mississippi closing was also brought up during interviews. As more rural hospitals close, many patients are forced to travel far distances to receive medical care (Campbell, 2019). For LEP patients, this adds an additional barrier to receiving quality healthcare. One interviewee working for a rural community noted, “we have patients who travel large distances, and one reason is because we have

an on-site interpreter.” Another key-informant working for an urban community health center stated,

“Patients will pass several towns, several communities where there are also providers, but they will come to our community health center because of the interpretation services. When you talk about communities who are marginalized, information is shared readily and quickly. Word gets out that at this particular place, someone speaks their language, and this is where they come.”

In cases in which an interpreter is unavailable in rural facilities or in time-sensitive cases, informal interpreters, typically bilingual staff who are not professional trained to interpret, are used. One interviewee stated, “Supposedly if an employee at the hospital speaks the language, they’re not supposed to translate. We have a 1-800 number to call, and they’re the ones who translate for the patients and help you get consent for legal purposes. But a lot of times, we need to get things going and it’s easier [to use staff.] We do it both ways. We’ll call the number for legal purposes so the [facility] does not get upset.”

An interviewee noted that ad hoc interpreters may be used, especially in emergency cases, as opposed to using the Language Line “when you need some right now” because with the Language Line, “you have to call, give patient information, and wait, so it takes some time.” Other interviewees also admitted to witnessing or knowing about the recent use of ad hoc interpreters, particularly children, in health facilities across the state. One key-informant stated, “I hear first-hand that the offices [of other facilities] tell [LEP patients] that they need to bring their children or their spouse or their family members. I have even heard of cases where children are interpreting for their family members.” As for stopping the use of ad hoc interpreters, the key-informant stated,

“They are not doing enough and not quickly enough, It is still rampant the use of family members and individuals in the community [as ad hoc interpreters.] Even people will pay friends or ad hoc interpreters to go with them to these facilities and the person may not even speak the language well. They’re not professional,

but they're being paid to render a service that really, by law, the facility should be paying for. So it's an abuse. It's a neglect and an abuse."

Outreach and current efforts. Furthering outreach was determined by several key-informants as necessary to minimize language barriers in healthcare. One interviewee stated, "There is still a need to continue to do more outreach[...] In the community, we have done health fairs to reach more LEP individuals." Several interviewees also indicated the expansion of health-related literature and signage written in other languages, particularly in Spanish. A key-informant from a community health center noted that Hispanic individuals and other foreigners may not be comfortable reaching medical services as "ICE put fear into a lot of people who are undocumented. That poses a problem for them. They're scared to come to a health facility because they don't want to risk being deported." This key-informant explained that it is important to reach those individuals and inform them of the services that are available to them through health fair and personal visits to overlooked communities/worksites. In addition to expanding outreach, key-informants indicated efforts to improve language access services by implementing technology such as video remote interpreting, but as mentioned previously, there are limitations to this type of service.

Health Providers' Web Content

Websites for healthcare facilities vary in their accessibility for LEP patients. Depending on whether the facility is in an urban or rural area or whether it is a clinic or a hospital, information about language services is sometimes widely available or not available at all. Three of the four sites included some limited information written in

Spanish, but none of the sites allows for full site access in Spanish. A comprehensible webpage is important to ensuring that LEP patients know how to reach medical services.

Urban hospital. When searching the term “interpreter” on a website for an urban hospital, I was directed to information regarding the types of language services provided at the hospital. The site states “The [hospital] offers Spanish interpreters/translators and a Choctaw liaison [during specific times]. Patients also have access to the language line which offers over 200 language and is available 24/7.” The website also provides a phone number for the office to contact regarding interpretive services. All information on the website is in English with no option to information written in another language.

Urban clinic. When exploring the website for an urban clinic, I immediately noticed that the top of the homepage includes a link listed as “En español” that directs to a video completely in Spanish with information about interpreter services and a phone number with an extension to contact an interpreter on-site. The bottom of the homepage lists a link titled “Aviso al público” that directs to information written in Spanish about an accreditation inspection to be conducted in 2016 to evaluate the clinic’s compliance with the national standards established by the Joint Commission. However, no update regarding this inspection is listed. After searching the terms “Spanish” and “interpreter” on the website’s search engine, I was directed to the staff training manual, specifically to a section on cultural competency. This section states, “You must be knowledgeable of the community’s culture, history and traditions. You must be aware of community resources available to them such as community leadership groups, translators, Spanish language radio and newspaper, and churches that cater to the Hispanic community. You must also know if personal or professional values conflict with the needs of patients of different backgrounds.”

Rural hospital. The homepage of the website for a rural hospital listed a notice of non-discrimination on the bottom of the site in over 40 different languages. The notice indicates in each of these languages that patients have access to free language assistance services and also includes a phone number to call for any other information regarding these services. The search terms “interpreter” and “translator” led to zero results. The search term “language service” directed to a link titled, “Patient Rights and Responsibilities” that states that patients have the right to information and service in their preferred language at no cost.

Rural clinic. The website for a rural clinic did not provide a search engine within the site. The homepage does not have visible information about language services. Under the heading “About,” and the subheading “Public Notice,” information is written in English and Spanish about patients’ rights as well as a phone number to call if information is needed in any other language.

As the findings demonstrate, Mississippi faces a healthcare crisis that affects access to care for all of its residents, especially LEP patients. Sociodemographic analysis of the two focus counties show that the rural county in Mississippi does not report a high number of LEP residents compared to urban sites or the U.S. as a whole. However, the findings indicate a positive Hispanic net migration in the rural county and the disproportionately high LEP patient population that rural community health centers serve. Additionally, the findings indicate a high net out-migration of young adults in all focus areas (state and county level), resulting in the phenomenon commonly known as “brain drain.” A high net out-migration along with an increase in rural hospital closures and consolidation of public health districts in a state that is medically underserved, especially

in its rural counties, have formed a major healthcare crisis. This crisis makes access to care especially difficult for LEP patients as the need for interpreters has increased while language access services in the state has not made substantial progress. Findings from the interviews confirmed the need for better language services in clinics, hospitals, and community health centers in both rural and urban areas. The right to language access services exists, but limitations in enforcement, training, and resources along with the sociodemographic context provided have revealed challenges in ensuring quality of care for LEP patients.

Discussion

Revisiting the Research Questions

This thesis sought to address relevant LEP population characteristics and assess how Mississippi addresses the issue of language barriers in healthcare in general and in both rural and urban counties through hospitals, clinics, and community health centers. As the LEP population in Mississippi increases, there is a growing need to ensure that LEP patients have equal access to quality healthcare, especially in a state that has been medically underserved for many years. Under the rights-based framework that considers health a human right, written policy and law in the United States should not only federally mandate the use of language access services but provide clear guidelines and enforce this mandate to a greater extent. Patient rights awareness should be one priority in addressing language barriers, but it is not sufficient to improving language access. Title VI of the Civil Rights Acts of 1964 and Section 1577 of the Affordable Care Act prohibits discrimination based on language and requires healthcare providers to provide language access services to ensure equal access to LEP patients. Yet, limitations in policy result in weak enforcement of language access services. Currently, for hospitals that do not provide adequate language services, patients could report a lack of compliance to the Department of Justice. However, evidence reveals that patients are prevented by a lack of information provided to them and are, thus, not always aware of their rights (Grubbs et al., 2006). Additionally, LEP patients have a relatively disempowered status, especially in the U.S. healthcare system, resulting in fear to speak up when help is needed. In evaluating healthcare for the LEP population through a rights-based lens, availability of service is not sufficient alone; accessibility and quality are also critical components of a service in providing equitable care.

Assessing the prevalence of ad hoc interpreter use is difficult because of its regulating complications, but the likelihood that facilities in Mississippi are continuing to use informal interpreters is strong, especially in cases where no other interpreter is available. Interview findings also revealed the continued use of ad hoc interpreters, especially children, in facilities across the state. From analyzing the sociodemographic profiles, we can assess that rural counties may not focus their attention on providing language access services due to limited resources and a seemingly insignificant LEP patient population as suggested by low reported numbers of non-English speakers living in the county. Thus, facilities in rural counties may be more likely to use ad hoc interpreters when no other option is available or during urgent, time-sensitive cases.

Although the MSDH recognizes the need for greater community interpreter training, the use of professional interpreters is not enforced strongly by healthcare facilities. Limitations in law prevent the professional training of interpreters, as Section 1557 of the Affordable Care Act does not consider licensure and certification as necessary to be deemed as a “qualified” interpreter (DHHS, 2016). However, the use of certified interpreters should be prioritized to limit the use of ad hoc interpreters as much as possible as they are less likely to make interpretation errors, are bound to a strict code of conduct and ethics, and are professionally trained, all circumstances that can prevent instances of medical malpractice. Currently, the MSDH is the only licensed site in the state that provides the 40-hour requisite for national certification (MSDH, 2017). However, as suggested by the interview findings, these training sessions have reported such low registration rates that the past two sessions were cancelled. Each training session is conducted over at least one week in Jackson, MS. Several factors could contribute to the low registration rates for these trainings, including limited accessibility,

travel expenses, time, and limited incentive to receive training as it is not deemed essential to be considered “qualified” by the OCR. Individuals may not see the worth in traveling to receiving this optional training when they have to take off of work for at least one week. As a future recommendation, professional interpreter training should be made more accessible. Furthermore, models of cultural competency should be incorporated into training.

As revealed by the net-migration data, Mississippi faces a significant out-migration crisis in which younger and likely more educated people are leaving the state at high rates. This phenomenon of brain drain is especially prevalent in the rural county. Additionally, almost half of Mississippi’s rural hospitals are at risk of closing (Moseley & DeBehnke, 2019). Both the out-migration crisis and the closures of rural hospitals result in a significant healthcare crisis in the state in which medical access for at-risk patients and the pool of qualified medical professionals become more limited.

Recommendations

Community Needs Assessment and Advocacy. Residents can be some of the best experts on the community context, conditions, and needs in which they live. By discussing with community members and healthcare professionals, health policy makers and administrators can better understand the healthcare needs of a community. With input from key individuals and the use of public data resources, a community needs assessment can be developed to advocate for greater resources for LEP patients. Understanding that health is not only an outcome of socioeconomic development but also a driver of development, advocacy for better resources and accessibility to healthcare can significantly benefit the overall development of a community. Collaboration among

community members, universities, healthcare providers, and policymakers to address and advocate for healthcare needs is crucial to underscore a community's demands.

Diversity and Recruitment. Approaches should be made to recruit more educated and more diverse professionals to the state, especially to rural communities, to increase access to healthcare. Increasing the racial and ethnic diversity of the healthcare workforce will help expand healthcare access for the underserved and neglected patient populations and provide adequate provision for culturally competent care. One way the healthcare crisis in the state is being addressed is through programs like the Mississippi Rural Physicians Scholarship Program at the University of Mississippi Medical Center which provides financial incentive to medical students who commit to serving in rural areas, where increased medical care is needed. From my visit to the Delta, I also learned of educational programs like New Pathways to Health and Opportunity in place for students beginning in middle school and high school living in rural communities who participate in specialized educational workshops, do community service projects, shadow healthcare professionals, and gain exposure to educational programs and careers in healthcare. These types of programs that give early exposure and education to students are crucial to expanding access to healthcare and recruiting diverse workforces.

Accessible Training. Training should be more accessible by increasing training modules online and prioritizing the importance of training for interpreters. As revealed in the findings, community health centers serve disproportionately high LEP patient populations and are, consequently, in need of qualified interpreters. As more rural hospitals in Mississippi close, health policy should place prioritized focus on CHCs which are likely to absorb more patients when access to care becomes limited. The challenges that CHCs face include recruiting and retaining providers and qualified

interpreters, implementing health information technology, and dealing with economic pressures. By making training more accessible, improving technology in these facilities, and finding ways to recruit more healthcare professionals to the area, access to care can be improved for LEP patients. Through the interviews, I learned of one organization named the Professional Association of Mississippi Interpreters and Translators (PAMIT), which focuses on elevating the professionalism of interpreters by bringing professional development opportunities, training, and workshops so that interpreters can grow their skills. PAMIT also organizes events for providers to learn how to work more effectively with interpreters. Organizations that advocate for the importance of qualified and trained interpreters such as PAMIT as well as increasing accessibility of training sessions can bring more qualified interpreters to health facilities in Mississippi.

Patient Rights Awareness, Outreach, and Accessibility. As previously mentioned, with a rights-based approach, availability of healthcare is not enough to ensure that LEP individuals are receiving adequate care. To further assure that LEP individuals are being granted their right to healthcare, knowledge of patient rights and accessibility of healthcare and services are important factors to consider. To minimize language barriers in healthcare, providers and health advocates need to inform individuals with LEP of not only their right to healthcare and language access services but also provide them with accessibility to care. In my research of healthcare facilities in a rural Delta county in MS, I found that one way providers are expanding access to care especially for LEP patients is by increasing their outreach efforts. One community health center has implemented mobile clinics that travels to underserved communities with high concentrations of Hispanic individuals. This community health center has also organized health fairs, set up school-based clinics, and provided routine transportation to various

facilities, which are all effective methods that have expanded access to health services. Telemedicine could also be further implemented in rural areas to expand reach of health care services in the state. These forms of outreach alleviate the stresses and pressure that LEP individuals may have when attempting to seek care.

Additionally, healthcare extends beyond the patient-provider interaction. One recommendation to expanding accessibility of care to LEP patients is to redesign healthcare facilities' websites to be written in languages other than English, especially Spanish. Having the option to access a facility's site in another language offers the opportunity for LEP patients to have greater access to medical information and resources in their primary language. Mayo Clinic launched its redesigned Spanish website in 2017 and allows Spanish-speaking patients to access a wide variety of information written in Spanish, including different services offered by the Mayo Clinic, medical estimates, language interpretation and translation services, and travel arrangements (Theimer, 2017). Spanish-speaking patients can also book appointments online with the new website.

Limitations and Future Research

Limitations in this study include interviewing only healthcare professionals, specifically physicians and interpreters, and not LEP patients or nurses. Interviewing LEP patients and nurses could provide different insights and perspective on how to improve language barriers. Additionally, rural counties have especially limited data on their populations, making it difficult to assess the prevalence of language barriers in these areas. Future research could further investigate the benefits of different types of interpretation in healthcare (in-person vs telephonic) to see if one type should be

prioritized over another. Costs of the various methods of providing language services should also be researched as facilities in especially rural counties in Mississippi have financial difficulties implementing new services. Future research could also explore a broader set of hospitals, clinics, and other providers across a more diverse set of counties.

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Appendix 1

1. To begin, can you tell me about the health care organization/facility you work for your role within it?
2. What do you believe is essential to a healthy patient-provider relationship?
3. How do you believe the use of an interpreter affects the patient-provider relationship?
4. In your experience, have there been difficulties in communication with a non-English speaking patient even when using interpreter services?
5. How does the current need for interpreter services in healthcare compare to previous years?
6. What types of interpreter services does your facility offer (languages, on-site/video/phone call)?
7. What training does your facility offer in working with non-English speaking patients?
8. In your experience, what language for interpreter services is most often requested?
9. How common are cases in which interpreters are unavailable when a patient has requested one?
10. What is the backup solution when an interpreter is unavailable?
11. Are family members, friends, or other staff ever used to help interpret?
12. Do you offer any health-related literature written in Spanish for your patients?
13. What suggestions do you have to improve communication with patients who have limited English proficiency?
14. What steps, if any, is your facility taking to minimize language barriers in the future?